

**ORDER**

**U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**8260.15D**

**8/5/98**

**SUBJ: UNITED STATES ARMY TERMINAL INSTRUMENT PROCEDURES SERVICE**

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**1. PURPOSE.** This order contains criteria and guidance regarding terminal instrument procedures service provided to the U.S. Army by the Federal Aviation Administration (FAA).

**2. DISTRIBUTION.** This order is distributed in Washington Headquarters to the division level in Air Traffic, Airway Facilities, and Flight Standards Services; to branch level in the Flight Technologies and Procedures Division, AFS-400; to the National Flight Procedures Office (NFPO), AVN-100; the Flight Inspection Operations Division, AVN-200; the Regulatory Standards Division at the Mike Monroney Aeronautical Center, AMA-200; to the National Flight Data Center (NFDC), ATA-100; the U. S. NOTAM Office (USNOF), ATO-200; the Flight Service Station (FSS) Operations/Procedures Branch, ATO-300; to branch level in the Flight Standards, Airway Facilities, and Air Traffic Divisions in the regions; to the U.S. Air Force Flight Standards Agency/XON; and the Headquarters U.S. Army Aeronautical Services Agency (HQ USAASA).

**3. CANCELLATION.** Order 8260.15C, U.S. Army Terminal Instrument Procedures Service, dated June 19, 1985, is canceled.

**4. EFFECTIVE DATE.** September 1, 1998.

**5. BACKGROUND.** Under National Agreement 127 (NAT-127), the FAA provides worldwide terminal instrument procedures service for the U.S. Army. This service shall include original procedure development and amendment as necessary (to include procedures for contingency/exercise operations), facility and procedure flight inspection service, site evaluation of proposed navigation aids, and procedure processing and publication. The development, maintenance, flight inspection, and handling policies of the U.S. Army and civilian procedures are similar, except as noted in this order. Charting is accomplished by the U.S. Army through the National Imagery and Mapping Agency (NIMA), St. Louis, Missouri.

**a. FAA Order 8260.3,** United States Standard for Terminal Instrument Procedures (TERPS), is the basic criteria for designing instrument approach procedures. Other 8260 series orders provide specific criteria for approaches using navigation systems not yet incorporated into Order 8260.3. FAA Order 8260.19, Flight Procedures and Airspace, provides guidance for procedural development, processing, and implementation. These directives shall be used except as stated in this order and when the U.S. Army and FAA agree on other written instructions. Foreign terminal instrument procedures will be processed in accordance with paragraph 18 of this order.

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**Distribution:** A-W(AT/AF/FS)-2; AFS-400; AVN-100 (100 cys); AVN-200 (10 cys); AMA-200 (80 cys); ATA-100 (LTD); ATO-200/300 (LTD); A-X(FS/AF/AT)-3 USAFFSA/XON; USAASA **Initiated By:** AFS-400

**b. FAA/U.S. Army coordination on matters** regarding instrument procedures service is directly between AVN-100 and HQ USAASA or USAASD-E. Coordination on matters regarding flight inspection services shall be in accordance with NAT-127. Questions regarding policy will be referred to the Flight Procedure Standards Branch, AFS-420, for resolution.

## **6. EXPLANATION OF CHANGES.**

**a. Functional area distribution codes** and responsibilities are updated to reflect organizational changes.

**b. Procedure processing and NOTAM procedures are clarified.**

**c. Host nation procedure review**, development and processing procedures changed to Foreign Terminal Instrument Procedures (FTIP) evaluations.

## **7. DEFINITIONS.**

**a. Contingency/Exercise Operations.** Instrument procedures required for troop training/deployments. Survey data may be marginal or non-existent. Waivers to criteria and equivalent levels of safety are the responsibility of the U.S. Army.

**b. Department of the Army Regional Representative to the FAA (DARR).** Army representatives are located in the FAA regional offices for coordinating all matters with the FAA on Army matters. DARR for the Southern Region also serves the Caribbean where FAA has jurisdiction. DARR for the Western-Pacific Region serves Hawaii and Pacific areas where FAA has jurisdiction. HQ USAASA serves other overseas areas.

**c. Flight Data Center (FDC) NOTAM.** A NOTAM issued by the U.S. NOTAM Office (USNOF) with primary input from the National Flight Data Center (NFDC). It is primarily used to disseminate safety of flight information relating to regulatory material, and to provide system-wide dissemination for all aeronautical information, flight procedures data, and other time-critical aviation information.

**d. Flight Procedures Office (FPO).** An office within the NFPO that serves as the regional focal point for matters relating to instrument procedures.

**e. Foreign Terminal Instrument Procedures (FTIP).** Instrument approach and departure procedures developed and published by foreign countries.

**f. Headquarters, U.S. Army Aeronautical Services Agency (HQ USAASA).** Organization tasked by the U.S. Army with primary responsibility for matters concerning terminal instrument procedures.

**g. Military (M-series) NOTAM:** M-NOTAM's refer to aeronautical information related to U.S. military facilities, procedures, and airfields.

**h. National Flight Data Center (NFDC).** FAA office charged with responsibility for collecting, validating, and disseminating aeronautical data.

**i. National Flight Procedures Office (NFPO).** FAA office responsible for development of instrument procedures.

**j. National Imagery and Mapping Agency (NIMA).** Charting agency responsible for military cartographic matters.

**k. Public Use Procedures.** Instrument approach/departure procedures developed for use at civil airports and U.S. Army installations designated as joint-use in the U.S. and its territories.

**l. Title 14 of the Code of Federal Regulations (14 CFR).** A codification of the general and permanent rules published in the Federal Register for Aeronautics and Space, Parts 60 through 139.

**m. Transmittal Letter (TL).** Biweekly Flight Standards publication, prepared by NFDC to assign effective dates and disseminate instrument approach/departure procedures to charting agents for publication. The TL also serves to notify NIMA, and FAA Air Traffic Control (ATC) facilities of new/amended procedures and associated effective dates.

**n. U.S. Army Aeronautical Services Detachment, Europe (USAASD-E).** Tasked by HQ USAASA with primary responsibility concerning Terminal Instrument Procedures (TERPS) in Europe, Eastern Europe, Africa, and the Middle East.

**o. U.S. Army Installation.** A military activity under the jurisdiction of the U.S. Army, the U.S. Army National Guard, or the U.S. Army Reserve (including an airfield, heliport, strip, or other landing areas).

**p. U.S. Army Procedures.** Instrument approach/departure procedures developed for the U. S. Army for military use at locations in the U.S. and its territories, or at overseas U.S. Army installations.

**8. FORMS.** In addition to those forms listed in FAA Order 8260.19, the following forms shall be used for U.S. Army procedures:

<b>Number</b>	<b>Title</b>
FAA Form 7210-9	Minimum IFR Altitude/Minimum Vectoring Altitude Obstruction Documentation
Local Form 8260-21	Departure Procedures/Takeoff Minimums
Local Form 8260-23	U.S. Army Standard Instrument Departure (SID) - OVERSEAS
Local Form 8260-24	U.S. Army Standard Terminal Arrival (STAR) – OVERSEAS

**9. FEASIBILITY STUDIES.** AVN-100 shall participate in discussions/studies as they relate to any phase of the TERPS process. These may include but are not limited to:

**a. Instrument procedure development methodology.**

**b. Location/use of navigational aids.**

**c. Procedure conflict resolution.**

**d. Help in determining if** operational weather minimums and minimum flight altitudes are adequate.

**e. Requirements or modification of U.S. airspace.**

**f. Obstruction evaluation for overseas locations** where instrument procedures are developed by AVN-100.

**g. Support for technical engineering requirements, etc.**

**10. WAIVERS.** HQ USAASA is the approving authority for all waivers of criteria for procedures documented on FAA Forms 8260-11/12/13/21/23/24. The Flight Technologies and Procedures Division, AFS-400, is the approving authority for all waivers of criteria for procedures documented on FAA Forms 8260-3/4/5. AVN-100 completes FAA Form 8260-1, Flight Procedures Standards Waiver, under Order 8260.19. When processing the form for HQ USAASA approval, the following exceptions apply:

**a. Block 6: Leave blank**

**b. Block 8: Substitute** "Installation Commander Endorsement" or "USAASD-E Action" as appropriate.

**c. Block 10: Substitute** "HQ USAASA action"

**11. AIRSPACE.** Airspace actions within the U.S. and its territories will be processed by AVN-100 through the appropriate Air Traffic regional office. HQ USAASA/USAASD-E shall coordinate airspace actions within their area of responsibility with the involved foreign countries.

**12. ENVIRONMENTAL STUDIES.** HQ USAASA is responsible for all actions associated with environmental issues at U.S. Army installations. AVN-100 is responsible for all actions associated with environmental issues at military/civil joint use civilian locations.

**13. MINIMUM VECTORING ALTITUDE CHARTS (MVAC).** (See FAA Order 7210.3, Facility Operation and Administration, and Order 8260.19). U.S. Army ATC facilities shall forward two copies of new or revised MVAC and FAA Form 7210-9 through the appropriate DARR to the Regional FPO for review. For U.S. Army installations outside U.S. territory and not under an FAA Regional Office, MVAC shall be forwarded to HQ USAASA or USAASD-E respective of the areas of responsibility. These will be forwarded to AVN-100 for review.

**14. PRIORITIES.** HQ USAASA and USAASD-E shall determine the priority and timeframes of procedure development/amendment/evaluation in their respective areas of responsibilities. HQ USAASA will provide AVN-100 a list of annual procedure and FTIP

requirements by December 1 of each year. Any additional requirements arising during the year will be added to the bottom of the list unless specifically requested by HQ USAASA. When HQ USAASA and USAASD-E priorities conflict, HQ USAASA shall exercise final decision authority. When AVN-100 is aware of conflicting priorities, needs to adjust priorities, or cannot accomplish the request by the requested date, they shall coordinate with HQ USAASA/USAASD-E to resolve conflicts or make changes.

## **15. BIENNIAL REVIEW.**

**a. HQ USAASA and USAASD-E** shall review all U.S. Army procedures under Order 8260.19 to verify obstacle, airfield, air navigation facility (NAVAID), etc., data have not changed since the last review, and verify the procedures are still required. HQ USAASA or USAASD-E is responsible for the Biennial review of FTIP used by the Army. Required changes shall be coordinated with AVN-100.

**b. AVN-100 shall review** all FAA developed U.S. Army procedures under Order 8260.19. FTIP shall be reviewed only at the request of the Army.

**16. AERONAUTICAL INFORMATION PUBLICATION (AIP).** AVN-100 will not maintain AIP libraries for foreign countries. This AIP information will be provided by the U.S. Army through separate agreement with NIMA.

**17. OBSTACLE EVALUATION (OE).** OE studies at CONUS locations are conducted by the FPO. OE requests from foreign countries are forwarded to AVN-100 through either HQ USAASA, or USAASD-E.

## **18. PROCEDURE DEVELOPMENT/EVALUATION, PROCESSING, AND COORDINATION.**

### **a. Responsibilities.**

**(1) The U.S. Army shall provide** the necessary charts and airport, facility, and obstacle data when AVN-100 determines that the data are not available through FAA sources.

**(a) HQ USAASA is AVN-100's primary point of contact** for all Army procedures within the U.S. and its territories as well as the Pacific, Asia, Central and South America, and the Caribbean. Responsibilities include but are not limited to:

1. Requesting AVN-100 to develop an original, amendment, or cancellation of Army procedures and conducting evaluations of FTIP.

2. HQ USAASA will provide worldwide Digital Terrain Elevation Data (DTED), Digital Vertical Obstruction Files (DVOF), and Digital Aeronautical Flight Information Files (DAFIF) for use in DOD instrument approach procedures development and review only. HQ USAASA will provide AVN-100 accuracy statements for use with these data, when not otherwise specified in Order 8260.19.

3. Forwarding procedures for publication as noted below.

4. Forwarding requests for Army procedures at U.S. civil airports to the appropriate FPO.

5. Determining acceptability of approach lighting systems.

6. Ensuring NFDC and AVN-100 are provided a current listing of joint-use and Army/military only airfields.

7. FTIP publication, amendments, and NOTAM's as listed in paragraph 18c(3).

8. NOTAM's as listed in paragraph 18d.

**(b) USAASD-E is AVN-100's primary point of contact** for U.S. Army procedures within Europe, Africa, Middle East, and Eastern Europe. Responsibilities include but are not limited to:

1 Requesting AVN-100 to develop an original, amendment, or cancellation of USA procedures (use FAA 8260 series forms), and conducting evaluations of FTIP.

2 Forwarding procedures to NIMA for publication as noted below.

3. FTIP publication, amendments, and NOTAM's as listed in paragraph 18c(3).

4. NOTAM's as listed in paragraph 18d

**(2) AVN-100 is the FAA office** responsible for procedure development in support of U.S. Army operations. Responsibilities include but are not limited to:

**(a) Advising the Army** when data is insufficient for procedure development/review.

**(b) Providing an original,** amended, or canceled procedure and coordinating the request with other concerned FAA offices (e.g. ATC facilities, FPO's, etc.).

**(c) Using FAA 8260 series forms** as specified in Order 8260.19 and this order.

**(d) Coordinating flight inspection** requests under FAA directives.

**(e) Initiating NOTAM action** under paragraph 18d.

**(f) Forwarding completed procedure packages** to HQ USAASA or USAASD-E for processing and publication.

**(g) Conducting evaluations of FTIP** when requested by HQ USAASA/USAASD-E based on their requested priority and time requirements.

**(3) The Flight Inspection Operations Division, AVN-200**, will conduct flight inspection of U. S. Army procedures and facilities as required by NAT-127 and FAA Order 8200.1, United States Standard Flight Inspection Manual.

**(4) The National Flight Data Center (NFDC)** is the FAA office charged with the responsibility for collecting, validating, and disseminating aeronautical data. The NFDC responsibility includes but is not limited to:

**(a) Providing a schedule** of suspense/cutoff dates to HQ USAASA to aid in achieving requested charting effective dates.

**(b) Performing the final pre-publication review** of U.S. Army procedures, coordinating and assigning effective dates, and publishing the procedures in the TL.

**(c) Processing NOTAM's** as listed in paragraph 18d.

**b. Procedures:** The following rules apply to Army procedures. Issues arising outside these rules will be coordinated on a case-by-case basis between AVN-100 and HQ USAASA/USAASD-E

**(1) Develop procedures for aircraft categories** based on minimum runway length as follows:

<b>Category</b>	<b>Length</b>
E	As coordinated with HQ USAASA/USAASD-E
D	4,000' or greater
C and below	less than 4,000'
Copter	Any Length

**(2) Restrict the minimum height above landing (HAL)/height above touchdown (HAT)** of COPTER precision approach radar (PAR) approaches with glide slope angles greater than 3.7° to 200 feet unless an approved approach lighting system is present.

**(3) U. S. Army procedures** standard alternate minimums do not apply. Leave the alternate minimums block blank. Check the alternate minimums block NA for RADAR procedures or for procedures requiring RADAR.

**(4) On PAR procedures**, list in the "Additional Flight Data" block, the glide slope angle, threshold crossing height (TCH), and runway point of intercept (RPI) locations.

**(5) Do not create fixes** requiring the use of two (2) nondirectional beacons (NDB's) for terminal instrument procedures.

**c. Processing.**

**(1) Public Use Procedures.** AVN-100 will document these procedures on FAA form(s) 8260-3/4/5/15 and follow the normal development and publication process used for 14 CFR part 97 procedures. An information copy will be forwarded to HQ USAASA.

**(2) U.S. Army Procedures.** AVN-100 will document these procedures on forms 8260-11/12/13/21/23/24.

**(a) AVN-100 will** develop procedures and forward forms to HQ USAASA/USAASD-E for approval.

**(b) HQ USAASA will** forward an advance copy of the forms to NIMA for advance chart preparation. After approval, the original forms will be forwarded to NFDC for review and processing. If necessary, HQ USAASA may coordinate an effective date for the procedure with NFDC prior to forwarding the procedure for publication in the TL.

**(c) HQ USAASA will** forward required data for development of instrument procedures as requested by AVN-100. This data should include, but not be limited to: Aerodrome chart/sketch/ALP/engineer's drawings (including survey data); NAVAID data sheets as necessary; and obstruction data in vicinity of the aerodrome.

**(d) Requests for standard instrument departures (SID's)/standard terminal arrivals (STAR's) will** be processed through the DARR.

**(e) Contingency/Exercise Operations.** Provide appendix 1, Survey Requirements, to AVN-100. Emergency, contingency, and exercise procedures are intended for loose-leaf publication. HQ USAASA is responsible for coordinating charting requirements.

**(f) HQ USAASA/USAASD-E shall** forward requests for SID's/STAR's at USA installations to AVN-100 providing a narrative description and sketch of the proposed routing.

**(3) Foreign Terminal Instrument Procedures (FTIP).**

**(a) AVN-100 will** evaluate FTIP when requested by HQ USAASA/USAASD-E. AVN-100's evaluation of FTIP, will be consistent with the amount of data provided for the evaluation. The evaluation report will list deviations to criteria of 8260.3, to include the appropriate paragraph(s). This evaluation will be completed within the timeframe established by the requester. This evaluation shall be provided in writing to HQ USAASA/USAASD-E using the format noted in appendix 2.

**(b) HQ USAASA/USAASD-E will** provide AVN-100 the following airport/aerodrome information (if available) for all requests for evaluation of FTIP:

1 Aerodrome chart/sketch/ALP/engineer's drawings to include survey data.



2. NAVAID data sheets as necessary.
3. Aerodrome data sheet
4. Obstruction data in vicinity of the airport
5. Translation of FTIP data into English
6. DTED, DVOF, and DAFIF data as noted in paragraph 18a(1)(a)2.

**(c) HQ USAASA/USAASD-E shall** be responsible for the publication process of FTIP.

**(d) HQ USAASA/USAASD-E will** ensure that FTIP amendments/cancellations and NOTAM's issued by the foreign country are forwarded to NIMA for publication.

**d. NOTAM Procedures.**

**(1) Public Use Procedures:** Procedures that have been processed and published under the rulemaking process (14 CFR Part 97) will use the FDC NOTAM process as noted in Order 8260.19. AVN-100 will provide HQ USAASA an information copy of all FDC NOTAM's. The Army will provide AVN-100 and the NFDC with a listing of all Joint-Use airfields, for tracking of procedures to be published in accordance with Part 97, to establish locations to be covered by the FDC NOTAM process.

**(2) U.S. Army Procedures:** These procedures will use M-Series NOTAM's. HQ USAASA or USAASD-E will be responsible for initiating, tracking, and canceling these NOTAM's. AVN-100 may initiate these NOTAM's, with next duty day notification to HQ USAASA or USAASD-E.

**(3) Foreign Terminal Instrument Procedures (FTIP):** M-Series NOTAM's will be used for Department of Defense (DOD) published FTIP. USAASA or USAASD-E will be responsible for initiating, tracking, and canceling these NOTAM's. AVN-100 may initiate these NOTAM's with next day notification to HQ USAASA or USAASD-E. FTIP NOTAM's that require procedural changes may be forwarded to NIMA.

**19. INFORMATION UPDATE.** Any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this order should be noted on FAA Form 1320-19, Directive Feedback Information. For your convenience, this form is included at the end of this order. Forward your comments to the originating office (ATTN: AFS-420) for consideration. If an interpretation is needed immediately, you may call the originating office for guidance. However, you should also use FAA Form 1320-19 as a follow-up to the verbal conversation.

**20. QUALITY CONTROL.** To ensure quality control over the development, processing, and publication of Army instrument approach procedures, both the Army and FAA agree to

work jointly to ensure optimum procedure service is provided. Deficiencies shall be worked at the lowest managerial level. Unresolved problems or issues requiring policy changes/interpretation shall be forwarded to AFS-420 for resolution.

Richard O. Gordon  
Acting Director, Flight Standards Service

**APPENDIX 1. SURVEY DATA REQUIRED FOR DESIGN OF  
INSTRUMENT APPROACH PROCEDURES**

*ALL DISTANCES (IN FEET) AND ELEVATIONS (IN FEET MSL) ARE IN  
HUNDREDTHS OF A FOOT; ALL LAT/LONG ARE IN HUNDREDTHS OF A  
SECOND AND ASSUMED TO BE IN WGS-84/NAD-83.  
DO NOT ROUND VALUES*

**1. FOR ALL RUNWAY/AIRPORT/HELICOPTER PAD/LANDING ZONES.**

- a. Provide data contained in the obstruction chart (OC) survey and compilation report.**
- b. Airport magnetic variation and year.**
- c. Type of runway/pad/zone surface and condition.**
- d. Type of runway/pad/zone markings and condition.**
- e. Type of runway/pad/zone lights.**
- f. Visual glide slope indicator (VGSI) angle and TCH.**
- g. Type of approach lights and length.** If the runway threshold is displaced, do the approach lights go to the displaced runway threshold?
- h. Who provides the airport weather?** Does the weather station operate 24 hours? Is weather on Service-A net? If not, then who will provide the weather and how is it reported to air traffic control facilities?
- i. FAA Order 8260.3B, table 18A,** wheel height group classification for runway/airport.

**2. FOR NDB, VERY HIGH FREQUENCY OMNI DIRECTIONAL RANGE (VOR),  
AND TACTICAL AIR NAVIGATION (TACAN) TYPE FACILITIES.**

- a. Provide data contained in OC survey compilation report.** Type of facility.
- b. Facility identifier - International Civil Aviation Organization (ICAO).**
- c. Remote monitor location (RADAR facility, Tower, Base Ops, Police Station, etc.).**
- d. Facility operating hours (Time in ZULU),** if less than 24 hours, what are the operating hours?
- e. Facility magnetic variation and year.**

**3. FOR PAR.**

**a. Provide data contained in Precision Approach RADAR ground control approach (GCA) data.**

**b. Desired glide slope angle.**

**4. FOR AIRPORT SURVEILLANCE RADAR (ASR).**

**a. Provide data contained in OC survey compilation report.**

**b. Magnetic variation/slaved variation and year.**

**c. Type of RADAR.**

**5. FOR OBSTACLES.** Provide data contained in the OC survey compilation report.

**6. GENERAL TERPS INFORMATION.**

**a. Category (CAT's A/B/C/D/E)** and type of aircraft/helicopter to fly the procedure.

**b. Type of procedure required.**

**c. Circling authorized?** If yes, any circling area restrictions?

**d. Suggested missed approach routes and altitudes.**

**e. MVA required?** Are you using another facility MVAC for RADAR vectoring to final approach fix (FAF)/intermediate fix (IF)? Provide other facility MVAC data for the area you will be RADAR vectoring.

This will be used for the FAF/IF altitudes for the ASR, PAR and other NAVAID's procedures.

**f. Suggested FAF altitude.**

**g. Any special use airspace (SUA) near the airport?**

**h. Suggested final approach courses (FAC).**

**i. Airspace for the approach control facility** and other nearby ATC facilities.

**7. ANY PHOTOGRAPHS OF AIRPORT (SURFACE, AIR OR SATELLITE); MAPS (SCALE 1:24,000 THROUGH 1:500,000), AIRPORT LAYOUT PLANS (ALP), OR CIVIL ENGINEERING MASTER TABS AVAILABLE?** If so, provide copies.

**8. IF REQUIRED INFORMATION NOT PROVIDED, WE WILL MAKE THE BEST DECISION FOR THE DESIGN OF THE PROCEDURE, WITH THE AVAILABLE SURVEY INFORMATION PROVIDED.**

**APPENDIX 2. FOREIGN TERMINAL INSTRUMENT  
PROCEDURES (FTIP) EVALUATION**

The listed FTIP have been evaluated and are forwarded for review, processing and publication.

- 1. FEEDER:**
- 2. INITIAL:**
- 3. INTERMEDIATE:**
- 4. FINAL:**
- 5. CIRCLING:**
- 6. MISSED APPROACH:**
- 7. HOLDING:**
- 8. MINIMUM SAFE ALTITUDE (MSA):**
- 9. PLAN VIEW:**
- 10. PROFILE VIEW:**
- 11. MINIMUMS:**
- 12. OTHER COMMENTS:**

Evaluated By: \_\_\_\_\_ Date: \_\_\_\_\_

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_ (Army Use Only)